1970 President Richard Nixon signs the National Environmental Policy Act, requiring a comprehensive environmental review The Clean Air Act is amended, creating stringent anti-pollution laws, setting auto emissions standards, and requiring state

CLEAN AIR

The Breath of Life - For a Healthy America

Before there was an Environmental Protection Agency, before there was an Earth Day, before Rachel Carson wrote "Silent Spring," there was Donora.

On the evening of October 26, 1948, a suffocating cloud of industrial gases and dust from a local zinc smelter descended upon this western Pennsylvania town like some biblical plague, killing 20 residents and sending 7000 people — half the population — to the hospital with breathing difficulty.

The Donora tragedy shocked the nation and marked a turning point in our complacency about industrial pollution and its effect on our health. Americans demanded breathable air, and industry was forced to clean up. Many states lacked resources or the will to address the problem. So, in 1963, Congress passed the first federal Clean Air Act, then amended it in 1970 to give it teeth. States were now required to come up with plans for reducing pollution to meet federal clean air standards.

Since the passage of the 1970 Clean Air Act, we have removed 98 percent of lead from the air, 79 percent of soot, 41 percent of sulfur dioxide, 28 percent of carbon monoxide, and 25 percent of the smog soup now called ozone.

We've come a long way since Donora, but our work is not done. America no longer has black skies or belching smokestacks. Today's air quality problems are more insidious. We now know that air pollution blows across state lines, and that nitrogen oxide emissions from a coal-fired power plant in the Midwest can cause unhealthy levels of ozone smog for children living in the Northeast.

Ground-level ozone — today's smog — is still with us, and so are its associated health problems. An estimated 10 to 20 percent of all respiratory-related hospital visits in the Northeast can be attributed to ozone pollution. Cases of death among children from asthma have reached alarming levels and are on the rise.

Over the past few years, EPA has taken several important steps to better protect public health. As the millennium turns, EPA continues to fight for the right of Americans to breathe clean air with new standards for fine particles and seek reductions in smog-causing nitrogen oxide emissions from power plants.

Whether it would have saved 20 lives in Donora in 1948, or will improve life for 100 million Americans living in areas that have not attained basic clean air goals, protecting air quality has become a health imperative. We may never return to the disastrous conditions of Donora, but the fight for clean, breathable air still presents major challenges.

for every large project approved or funded by the federal government. 20 million people celebrate the first Earth Day. plans to achieve standards. The U. S. Environmental Protection Agency is created with 5,000 employees and a $1.3 billion

Protecting the environment has paid big dividends to Americans, and none bigger than public health. It's a matter of health and breath.

Economic, Health and Environmental Benefits

The economic value of the public health and environmental benefits that Americans enjoy from the 1990 amendments to the Clean Air Act exceed their costs by a margin of 4-to-1. An estimated $110 billion will be saved, avoiding illnesses and premature deaths that would have occurred without new clean air standards in the amendments.

Using a sophisticated array of computer models and the latest emissions and cost data, an EPA study shows that by 2010, implementation of the amendments will save 23,000 people from dying prematurely, and will avert more than 1.7 million asthma attacks.

In addition, the clean air amendments will prevent 67,000 incidents of chronic and acute bronchitis, 91,000 occurrences of shortness of breath, 4.1 million lost work days, and 31 million days in which Americans would have had to restrict activity due to air pollution and related illnesses. These standards also would prevent 22,000 respiratory-related and 42,000 cardiovascular-related hospital admissions, and 4,800 emergency room visits for asthma.

Smog in the mid-Atlantic

Ozone smog that plagues the mid-Atlantic states is caused by a combination of local and regional sources. Air pollution does not stop at state lines. States in the region have spent millions of dollars to reduce unhealthy levels of smog, but are faced with pollution transported from power plants and factories hundred of miles away. Delaware, Maryland, Pennsylvania, Virginia and the District of Columbia all have

Courtesy of the Pittsburgh Post-Gazette

***In 1968**, smoke blotted out the sky in Pittsburgh on a bad air day, two years before Congress amended the Clean Air Act and gave it teeth. Once known as the Smoky City, a century of iron, steel and coke making created an unrelenting haze that blackened buildings and blotted out the sun until the late 1940s when Pittsburgh got serious about cleaning the air.*

budget. EPA Region III is established with offices in Philadelphia and laboratories in Annapolis, Md., and Wheeling, W.Va. paint on cribs and toys. 1972 Clean Water Act is passed, reducing pollution from point sources. DDT is banned. Manufacturers

upgraded their auto inspection and maintenance programs to ensure that vehicle emissions are minimized.

In the metro Washington, D.C., area including northern Virginia, more than 1 million people live in this area which does not meet health-based air quality standards for ozone. Richmond and the Shenandoah National Forest have exceeded the standard several times. More than 6 million Pennsylvanians live in areas that do not meet air quality standards, as do more than 4 million people in Maryland and 500,000 in Delaware.

EPA continues to work with the states to reduce sources of smog, and to help businesses develop new cost-saving technologies to reduce pollution. A clear example of our success in reducing ozone is seen by comparing the hot summers of 1988 and 1998. In 1988, mid-Atlantic states had 60 days exceeding the one-hour health-based standard. But by 1998, there were fewer than 10.

Public Awareness of Air Quality

Public awareness of air quality, indoors and outdoors, has advanced significantly. Most new home buyers now test for radon, the second leading cause of lung cancer in the United States. Mid-Atlantic scientists recognized the harmful health effects of the naturally occurring radon in homes in Reading, Pennsylvania and sounded the alarm across the country. Renters, home owners and builders now know that asbestos is harmful. During the summers, when press reports alert us to ozone action days, citizens now reduce exposure to high levels of this noxious ozone-smog.

With a sophisticated urban air monitoring network in place, we now have a statistical basis to protect our nation's air quality and public health.

Courtesy of Norman W. Schumm

***Today**, Pittsburgh's Golden Triangle offers spectacular evidence of how well Americans can clean up a polluted city.*

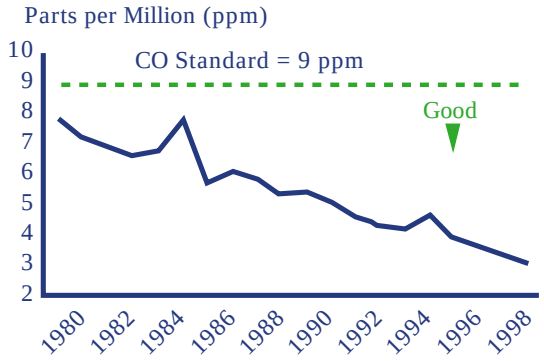
First Regional Administrator is Edward W. Furia, Jr. 1971 Congress restricts lead-based paints in residences and bans lead required to supply toxicological information and register pesticides. Canada and the U.S. agree to clean up the Great Lakes.

Environmental Enforcement

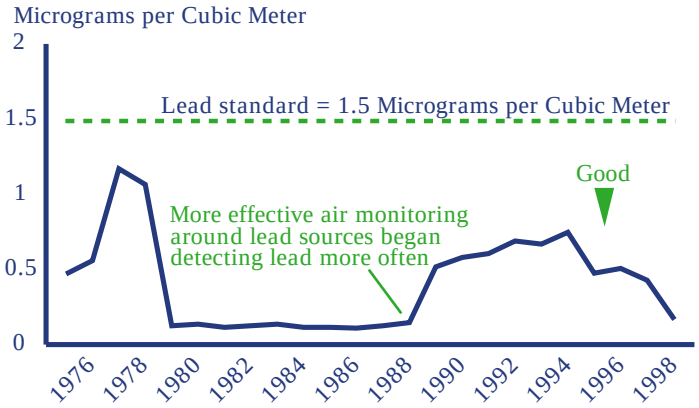
The mid-Atlantic region has always been active in Clean Air Act enforcement. Recently, the region has added sector initiatives, where specific industrial sectors were targeted. EPA investigated sectors where there had been significant expansion and the necessary permits and pollution control equipment may not have been installed. As a result, in 1998 the pulp and paper industry and in 1999 the utility industry were cited. These enforcement actions promise to reduce tons of pollutants and may require significant penalties. EPA has compliance assistance information for these and other industrial sectors to help them comply with the Clean Air Act.

Serious Reductions Made in 4 of 6 Most Common Air Pollutants Affecting Public Health in the Mid-Atlantic Region

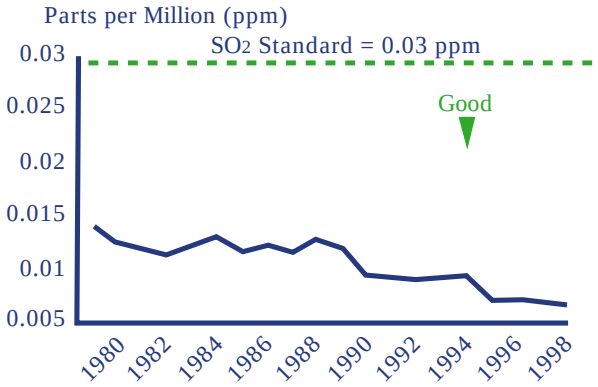
Carbon Monoxide Air Levels Have Dropped Significantly



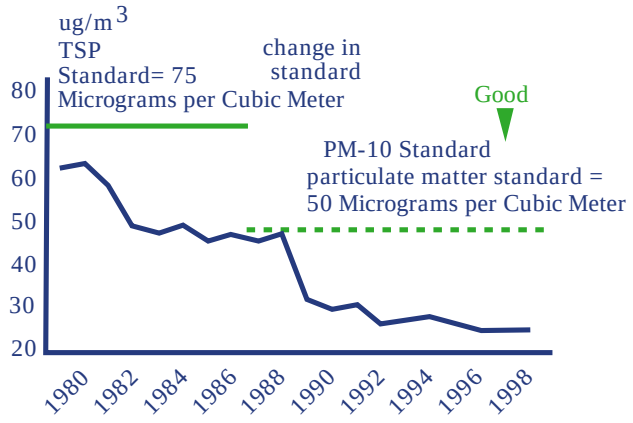
Regional Lead Air Levels are Declining



Sulfur Dioxide Air Levels are Far Below the Standard



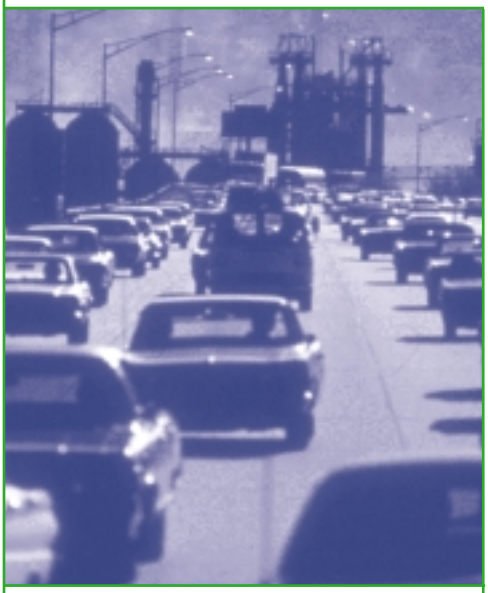
TSP & PM-10: Less Dust and Soot in Air



Source: EPA AIRS Database

EPA's efforts to reduce air pollution began with six criteria air pollutants:carbon monoxide (CO), sulfur dioxide (SO2), particulate matter which is dust and soot (PM-10), lead (Pb), ozone, and nitrogen dioxide. Progress has been made in reducing all six of these criteria pollutants. Utilities and industry's compliance with the Clean Air Act have brought about serious air quality improvements by reducing CO, SO2, and PM-10. Removing lead from from gasoline has brought about more air quality gains.

Representatives of 114 countries meet in Stockholm, Sweden in first global environmental conference. 1973 Congress passes out lead in gasoline. Energy crisis grips the world, exacerbated by an Arab nations oil embargo. 1974 Theory is published on



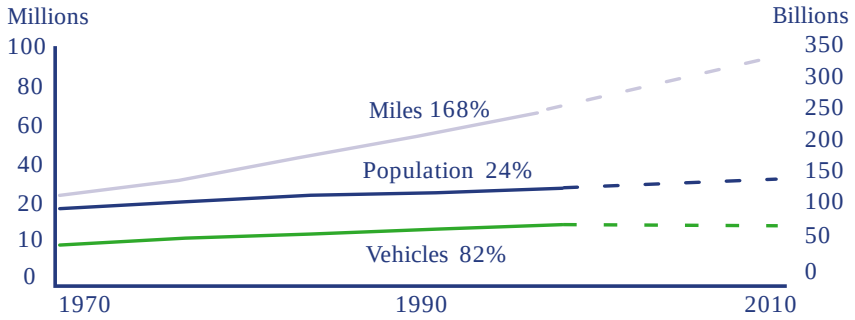
Courtesy of S. C. Delaney/EPA

The automobile is one of the major producers of smog. Motorists drive 35 percent more miles than in 1987. Freeways are clogged during rush hours from urban sprawl as the number of vehicles on the road has increased faster than the population.

D.C. Metro Center Courtesy WMATA, Phil Portlock

Taking mass transit, sharing a ride or car pooling reduces traffic congestion, air pollution, and saves money.

Number of Vehicles and Vehicle Miles Traveled Increases Dramatically



Source: EPA OAQPS; US. Census

During the past 30 years, air quality has improved significantly while the GDP grew by 140 percent, the population grew by 24 percent, and the number of motor vehicle miles driven increased by 168 percent.

Cleaner Air for the New Century

In addition to more efficient automobiles and cleaner fuels, state managed inspection and maintenance programs have also contributed to cleaner air.

In December 1999, in another key step to protect America's public health, President Clinton announced the strongest standards ever for controlling harmful tailpipe emissions. For the first time, sport utility vehicles, mini-vans and pickup trucks will also meet the same new low tailpipe emissions required for passenger cars. This also provides for cleaner gasoline with lower sulfur content.

The public health benefits of these new standards are truly significant. Over the next few decades, almost 50 million tons of smog-causing air pollution will be removed from the air. This means 260,000 fewer asthma attacks in children, 4,300 premature deaths prevented and 173,000 respiratory-related illnesses avoided. The new rules will save the nation $25 billion in medical and other health-related costs and prevent 683,000 missed workdays and more than 5 million days when people restrict their activity because of bad air.

To get real time information about smog and air quality in your area, click on to www.epa.gov/airnow/

Endangered Species Act. 80 nations sign treaty to protect endangered species and wild flora and fauna. EPA begins to phase how chlorofluorocarbons (CFCs) destroy the stratospheric ozone layer, which protects Earth from ultraviolet radiation.